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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,958	11/26/2003	Paul E. Newson	13768.810.63	1223
47973 7590 10/18/2007 WORKMAN NYDEGGER/MICROSOFT 1000 EAGLE GATE TOWER 60 EAST SOUTH TEMPLE SALT LAKE CITY, UT 84111			EXAMINER MURRAY, DANIEL C	
			ART UNIT 2143	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/722,958	NEWSON ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Daniel Murray	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26NOV2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26NOV2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>19MAR2004</u>   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Information Disclosure Statement*

1. The information disclosure statement submitted on 19MAR2004 has been considered by the Examiner and made of record in the application.

### *Drawings*

2. The drawings are objected to because of a minor informality.
  - Figure 1, replace "A" with --a-- in reference character "132A"
3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

4. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

***Claim Objections***

6. **Claim 1** is objected to because of the following informalities:
  - a) On **line 6 of claim 1**, replace "a" with --the-- before "computing" in order to provide proper antecedent basis for "computing device".

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claim 1** is rejected under 35 U.S.C. 102(a) as being anticipated by **Perrot et al. (US Patent Pub # US 2004/0125744 A1)**.

a) Consider **claim 1**, Perrot et al. clearly show and disclose, a bridge for connecting a computing device to a wireless network (figure 2, figure 3, abstract, paragraph [0001], paragraph [0017]), comprising:

(a) a memory in which are stored authentication data and machine instructions, said authentication data being included to enable the bridge to be recognized as compatible for configuration through the computing device (figure 3, paragraph [0033]);

(b) a port adapted to couple the bridge to the computing device through a wire connector (figure 2, figure 3, paragraph [0015], paragraph [0027]);

(c) a radio that includes a wireless receiver and a wireless transmitter that are coupled to an antenna system (figure 2, figure 3, paragraph [0038]);

(d) a processor coupled to the memory, the port, and the radio, said processor executing the machine instructions to carryout a plurality of functions (figure 3, paragraph [0033]); including:

(i) responding to a discover request from the computing device that is coupled to the bridge by returning an indication of an address of the bridge and configuration information for the bridge, as well as the authentication data, to the computing device via the port (figure 4, abstract, paragraph [0005], paragraph [0006], paragraph [0031], paragraph [0033], paragraph [0036]);

(ii) responding to a command received from the computing device, to set properties of the bridge so as to enable the bridge to subsequently communicate data to and from the computing device over the wireless network (figure 4, abstract, paragraph [0036], paragraph [0039] lines 15-28, paragraph [0042]); and

(iii) communicating data between the computing device and the wireless network (paragraph [0009], paragraph [0017]).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. **Claims 2 and 3** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Perrot et al. (US Patent # US 2004/0125744 A1)** in view of **Nessett et al. (US Patent # US 6,865,673 B1)**.

a) Consider **claim 2**, and **as applied to claim 1 above**, Perrot et al. clearly show and disclose, the bridge of Claim 1. However, Perrot et al. does not specifically disclose the

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authentication data comprise a key that is provided to the computing device, but is not publicly available.

Nessett et al. show and disclose a method for installing a network device in a packet based data communication network and checking the authenticity of the installation which uses encryption keys to provide authentication (abstract, column 1 lines 7-14, column 2 lines 54-58, column 5 lines 12-36).

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate the teachings of Nessett et al. into the system of Perrot et al. for the purpose of securely installing a plug-and-play network device (column 1 lines 7-14, column 2 lines 45-53).

b) Consider **claim 3**, and **as applied to claim 2 above**, Perrot et al. as modified by Nessett et al. clearly show and disclose, the bridge of Claim 2, wherein the machine instructions cause the processor to apply a one-way hashing algorithm that uses the key (column 2 lines 54-67), to a concatenation of a one-time variable, and the address of the bridge (column 2 lines 54-67, column 3 line 1), producing a result that is communicated to the computing device in response to the discover request (column 1 lines 66-67, column 2 lines 1-6, column 4 lines 43-58), to enable the computing device to confirm a compatibility of the bridge for being configured with the properties sent to the bridge by the computing device.

13. **Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Perrot et al. (US Patent # US 2004/0125744 A1) in view of Kracht (US Patent # US 6,516,345 B1).**

a) Consider **claim 4**, and **as applied to claim 1 above**, Perrot et al. clearly show and disclose, the bridge of Claim 1. However, Perrot et al. does not specifically disclose the machine instructions further cause the processor to respond to a request received from the computing device

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to enumerate all available wireless networks by scanning for available wireless networks and returning a response to the computing device that identifies an address for each access point of an available wireless network, and other parameters for each available network enumerated by scanning.

Kracht shows and discloses approaches for determining the actual physical topology of network devices in a network. Machine instructions further cause the processor to respond to a request received from the computing device to enumerate all available wireless networks by scanning for available wireless networks and returning a response to the computing device that identifies an address for each access point of an available wireless network, and other parameters for each available network enumerated by scanning (figure 9, figure 10, abstract, column 3 lines 59-67, column 4 lines 1-30, column 6 lines 11-23).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Kracht into the system of Perrot et al. for the purpose of determining the available networks.

14. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Perrot et al. (US Patent # US 2004/0125744 A1)** in view of **Kracht (US Patent # US 6,516,345 B1)** in further view of **Kaan et al. (US Patent Pub # US2002/0065941 A1)**.

a) Consider **claim 5**, and as applied to **claim 4 above**, Perrot et al. as modified by Kracht clearly show and disclose, the bridge of Claim 4. However, Perrot et al. as modified by Kracht does not specifically disclose the machine instructions further cause the processor to respond to the subsequent command received from the computing device by setting the properties of the bridge as needed to communicate with an available network identified by scanning.

Kaan et al. show and disclose configuring a router to accommodate variations in parameters for changing from one network interface device to another for the router's network connection



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(paragraph [0003]). The user can select the network connection type through the user interface and the program automatically configures the router with parameters for the selected connection type (abstract, paragraph [0012], paragraph [0013], paragraph [0014]).

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate the teachings of Kaan et al. into the system of Perrot et al. as modified by Kracht for the purpose of configuring a connection based on the networks available (paragraph [0012] lines 9-12).

15. **Claims 6, 11, 12, and 14-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Perrot et al. (US Patent # US 2004/0125744 A1)** in view of **Kaan et al. (US Patent Pub # US 2002/0065941 A1)**.

a) Consider **claim 6**, Perrot et al. clearly show and disclose, a method for automatically configuring a bridge to communicate over a wireless network, where the bridge is coupled through a wire connection to a computing device (figure 2, figure 3, abstract, paragraph [0001], paragraph [0015], paragraph [0017], paragraph [0027]), comprising the steps of:

(a) sending a discover request over the wire connection to the bridge, requesting a response that provides information about the bridge (figure 4, abstract, paragraph [0005], paragraph [0006], paragraph [0031], paragraph [0033], paragraph [0036]);

(b) in response to the discover request, sending an indication of an address of the bridge and configuration information for the bridge, as well as authentication data to the computing device (figure 4, abstract, paragraph [0005], paragraph [0006], paragraph [0031], paragraph [0033], paragraph [0036]);

(c) based upon the indication of the authentication data, verifying whether the bridge is compatible for being configured with properties sent by the computing device, to communicate over

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the wireless network (figure 4, abstract, paragraph [0005], paragraph [0006], paragraph [0031], paragraph [0033], paragraph [0034], paragraph [0036]); and

(f) communicating data to and from the computing device through the bridge over the wireless network (paragraph [0009], paragraph [0017]). However, does not specifically disclose:

(d) if the step of verifying confirms that the bridge is compatible, sending a command to the bridge from the computing device to set properties of the bridge so as to enable the bridge to subsequently communicate data to and from the computing device over the wireless network); and

(e) in response to the command, setting the properties of the bridge.

Kaan et al. show and disclose configuring a router to accommodate variations in parameters for changing from one network interface device to another for the router's network connection (paragraph [0003]). The user can select the network connection type through the user interface and the program automatically configures the router with parameters for the selected connection type (abstract, paragraph [0012], paragraph [0013], paragraph [0014], paragraph [0042]).

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate the teachings of Kaan et al. into the system of Perrot et al. for the purpose of configuring a connection.

b) Consider **claim 11**, and **as applied to claim 6 above**, Perrot et al. as modified by Kaan et al. clearly show and disclose, the method of Claim 6, further comprising the step of enabling a user to initiate configuration of the bridge by selecting an option in a program executed on the computing device (abstract, paragraph [0012], paragraph [0042], paragraph [0050], paragraph [0051], paragraph [0079]).

c) Consider **claim 12**, and **as applied to claim 6 above**, Perrot et al. as modified by Kaan et al. clearly show and disclose, the method of Claim 6, wherein the computing device comprises a

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game console specifically designed to facilitate play of electronic games (Perrot et al. paragraph [0026]).

d) Consider **claim 14**, and as applied to claim 6 above, Perrot et al. as modified by Kaan et al. clearly show and disclose, the method of Claim 6, further comprising the step of enabling a user to selectively query the bridge for the properties with which the bridge is currently configured (paragraph [0050], paragraph [0051]).

e) Consider **claim 15**, and **as applied to claim 6 above**, Perrot et al. as modified by Kaan et al. clearly show and disclose, the method of Claim 6, wherein after the bridge responds to the discover request, the bridge and the computing device employ a unicast communication, based upon a media access control access address for the bridge and the computing device (Perrot et al. paragraph [0014], paragraph [0048]).

f) Consider **claim 16**, and **as applied to claim 6 above**, Perrot et al. as modified by Kaan et al. clearly show and disclose, the method of Claim 6, further comprising the step of enabling a user to change selected properties of the bridge in a user interface displayed by the computing device (figure 6, paragraph [0050], paragraph [0051], paragraph [0077], paragraph [0079]).

g) Consider **claim 17**, and **as applied to claim 5 above**, Perrot et al. as modified by Kaan et al. clearly show and disclose, a memory medium that stores machine instructions for carrying out steps (a), (c), and (d) of Claim 5 (Perrot et al. figure 3, paragraph [0033], Kaan et al. paragraph [0089]).

h) Consider **claim 18**, and **as applied to claim 6 above**, Perrot et al. as modified by Kaan et al. clearly show and disclose, a memory medium that stores machine instructions for carrying out steps (b), (e) and (f) of Claim 6 (Perrot et al. figure 3, paragraph [0033], Kaan et al. paragraph [0089]).

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**16. Claims 7 and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Perrot et al. (US Patent # US 2004/0125744 A1)** in view of **Kaan et al. (US Patent Pub # US2002/0065941 A1)** in further view of **Nessett et al. (US Patent # US 6,865,673 B1)**.

a) Consider **claim 7**, and as **applied to claim 6 above**, Perrot et al. as modified by Kaan et al. clearly show and disclose, the method of Claim 6. However, Perrot et al. as modified by Kaan et al. does not specifically disclose the step of sending the indication comprises the steps of:

- (a) on the bridge, accessing a key that is not publicly known;
- (b) applying a one-way hashing algorithm that uses the key, to a concatenation of a one-time variable, and the address of the bridge, producing a result; and
- (c) sending the result and the configuration information to the computing device.

Nessett et al. show and disclose a method for installing a network device in a packet based data communication network and checking the authenticity of the installation which

- (a) accesses a key that is not publicly known (abstract, column 1 lines 7-14, column 2 lines 54-58, column 4 lines 26-58, column 5 lines 12-36);
- (b) applies a one-way hashing algorithm that uses the key (column 2 lines 54-67), to a concatenation of a one-time variable, and the address of the bridge, producing a result (column 2 lines 54-67, column 3 line 1); and
- (c) sending the result and the configuration information to the computing device (column 1 lines 66-67, column 2 lines 1-6, column 4 lines 43-58).

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate the teachings of Nessett et al. into the system of Perrot et al. for the purpose of securely installing a plug-and-play network device (column 1 lines 7-14, column 2 lines 45-53).

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b) Consider **claim 8**, and **as applied to claim 7 above**, Perrot et al. and Kaan et al. as modified by Nessett et al. clearly show and disclose, the method of Claim 7, wherein the step of verifying comprises the steps of:

(a) on the computing device, accessing the key that is not publicly known (abstract, column 1 lines 7-14, column 2 lines 54-58, column 4 lines 26-58, column 5 lines 12-36);

(b) applying the one-way hashing algorithm that uses the key (column 2 lines 54-67), to a concatenation of the one-time variable, and the address of the bridge producing a test result (column 2 lines 54-67, column 3 line 1); and

(c) comparing the result received from the bridge with the test result, so that if the result is equal to the test result, the computing device verifies that the bridge is compatible with being configured using the properties sent by the computing device (column 4 lines 26-58).

17. **Claims 9 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Perrot et al. (US Patent # US 2004/0125744 A1)** in view of **Kaan et al. (US Patent Pub # US 2002/0065941 A1)** in further view of **Kracht (US Patent # US 6,516,345 B1)**.

a) Consider **claim 9**, and **as applied to claim 6 above**, Perrot et al. as modified by Kaan et al. clearly show and disclose, the method of Claim 6. However, Perrot et al. as modified by Kaan et al. does not specifically disclose further comprising the steps of:

(a) sending a request from the computing device to the bridge to scan for available wireless networks;

(b) in response to the request to scan, scanning and enumerating all available wireless networks with the bridge; and

(c) returning a response from the bridge to the computing device that identifies an address for each

access point of each available wireless network enumerated in the step of scanning, and other parameters for each available network enumerated by the step of scanning.

Kracht shows and discloses approaches for determining the actual physical topology of network devices in a network. Machine instructions further cause the processor to respond to a request received from the computing device to enumerate all available wireless networks by scanning for available wireless networks and returning a response to the computing device that identifies an address for each access point of an available wireless network, and other parameters for each available network enumerated by scanning (figure 9, figure 10, abstract, column 3 lines 59-67, column 4 lines 1-30, column 6 lines 11-23).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Kracht into the system of Perrot et al. for the purpose of determining the available networks.

b) Consider **claim 10**, and **as applied to claim 9 above**, Perrot et al. and Kaan et al. as modified by Kracht clearly show and disclose, the method of Claim 9 further comprising the step of selecting an available wireless network on the computing device (Kaan et al. paragraph [0042], paragraph [0050], paragraph [0051]) and specifying the properties sent to the bridge for the wireless network that is selected (Kaan et al. abstract, paragraph [0012], paragraph [0013], paragraph [0014]).

18. **Claim 13** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Perrot et al. (US Patent # US 2004/0125744 A1)** in view of **Kaan et al. (US Patent Pub # US 2002/0065941 A1)** in further view of **Feder et al. (US Patent # US 6,522,881 B1)**.

a) Consider **claim 13**, and **as applied to claim 6 above**, Perrot et al. as modified by Kaan et al. clearly show and disclose, the method of Claim 6, further comprising the step of enabling a user of the computing device to selectively send a status request to the bridge, said status request

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indicating whether the bridge is connected in communication with a wireless network (paragraph [0062], paragraph [0082]). However, Perrot et al. as modified by Kaan et al. does not specifically disclose indicating a signal strength of wireless signals received by the bridge over the wireless network.

Feder et al. show and disclose selecting an access point in a wireless network by monitoring control signals transmitted by access point and electing an access point based on communication link quality metrics, such as signal strength (abstract, column 2 lines 36-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Feder et al. into those of Perrot et al. as modified by Kaan et al. for the purpose of determining the signal strength of available access points.

19. **Claims 19, 20, and 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Perrot et al. (US Patent # US 2004/0125744 A1)** in view of **Nessett et al. (US Patent # US 6,865,673 B1)**.

a) Consider **claim 19**, Perrot et al. clearly show and disclose, a computing device for setting up a bridge to communicate over a wireless network (figure 2, figure 3, abstract, paragraph [0001], paragraph [0017]), comprising:

(a) a memory in which machine instructions are stored (figure 3, paragraph [0033]);

(b) a network interface and port used for connecting through a wire lead to a bridge (figure 2, figure 3, paragraph [0015], paragraph [0027]);

(c) a processor coupled to the memory and the network interface, said processor executing the machine instructions to carry out a plurality of functions (figure 3, paragraph [0033]), including:

(i) sending a discover request to a bridge that is connected to the network interface through the port, requesting information about the bridge (figure 4, abstract, paragraph [0005], paragraph [0006], paragraph [0031], paragraph [0033], paragraph [0036]);

(iii) if the bridge is compatible with being setup by the computing device, sending a command to the bridge with properties selected to configure the bridge for communicating over the wireless network (figure 4, abstract, paragraph [0036], paragraph [0039] lines 15-28, paragraph [0042]); and

(iv) communicating over the wireless network through the bridge (paragraph [0009], paragraph [0017]).

However, Perrot et al. does not specifically disclose (ii) using a key that is not publicly known for determining from the response to the discover request received from the bridge, whether the bridge has included an indication that appropriate authentication data are stored on the bridge, thereby verifying whether the bridge is compatible with being set up to communicate over the wireless network by the computing device.

Nessett et al. show and disclose a method for installing a network device in a packet based data communication network and checking the authenticity of the installation which uses encryption keys that are not publicly known for determining from the response to the discover request received from the bridge (abstract, column 1 lines 7-14, column 2 lines 54-58, column 5 lines 12-36), whether the bridge has included an indication that appropriate authentication data are stored on the bridge (abstract, column 4 lines 26-58, column 5 lines 12-36), thereby verifying whether the bridge is compatible with being set up to communicate over the wireless network by the computing device.

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate the teachings of Nessett et al. into the system of Perrot et al. for



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the purpose of securely installing a plug-and-play network device (column 1 lines 7-14, column 2 lines 45-53).

b) Consider **claim 20**, and **as applied to claim 19 above**, Perrot et al. as modified by Nessett et al. clearly show and disclose, the computing device of Claim 19, wherein the machine instructions further cause the processor to:

- (a) receive a response to the discover request from the bridge that conveys a result (figure 4, abstract, paragraph [0005], paragraph [0006], paragraph [0031], paragraph [0033], paragraph [0036]);
- (b) access the key that is not publicly known (abstract, column 1 lines 7-14, column 2 lines 54-58, column 5 lines 12-36);
- (c) applying a one-way hashing algorithm that uses the key, to a concatenation of a one-time variable, and an address of the bridge, producing a test result (Nessett et al. column 2 lines 54-67, column 3 line 1); and
- (d) compare the response received from the bridge with the test result, and if the result is equal to the test result (Nessett et al. column 4 lines 26-58), to verify whether the bridge is compatible with being setup using the properties sent by the computing device.

c) Consider **claim 24**, and **as applied to claim 19 above**, Perrot et al. as modified by Nessett et al. clearly shows and discloses, the computing device of Claim 19, wherein the computing device comprises a game console specifically designed to facilitate play of electronic games (Perrot et al. paragraph [0026]).

20. **Claim 21** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Perrot et al. (US Patent # US 2004/0125744 A1)** in view of **Nessett et al. (US Patent # US 6,865,673 B1)** in further view **Kracht (US Patent # US 6,516,345 B1)**.

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a) Consider **claim 21**, and **as applied to claim 20 above**, Perrot clearly show and disclose, the computing device of Claim 20. However, Perrot et al. as modified by Nessett et al. does not specifically disclose the machine instructions further cause the processor to send a request to the bridge to scan for available wireless networks.

Kracht shows and discloses approaches for determining the actual physical topology of network devices in a network. Machine instructions further cause the processor to respond to a request received from the computing device to enumerate all available wireless networks by scanning for available wireless networks and returning a response to the computing device that identifies an address for each access point of an available wireless network, and other parameters for each available network enumerated by scanning (figure 9, figure 10, abstract, column 3 lines 59-67, column 4 lines 1-30, column 6 lines 11-23).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Kracht into the system of Perrot et al. for the purpose of determining the topology of a network.

**21. Claim 22** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Perrot et al. (US Patent # US 2004/0125744 A1)** in view of **Nessett et al. (US Patent # US 6,865,673 B1)** in view of **Kracht (US Patent # US 6,516,345 B1)** in further view of **Kaan et al. (US Patent Pub # US 2002/0065941 A1)**.

a) Consider **claim 22**, and **as applied to claim 21 above**, Perrot et al. as modified by Nessett et al. and Kracht clearly show and disclose, the computing device of Claim 21. However, Perrot et al. as modified by Nessett et al. and Kracht does not specifically disclose the machine instructions further cause the processor to select an available wireless network and specify the

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properties sent to the bridge for configuring the bridge to communicate over the wireless network that is selected.

Kaan et al. show and disclose configuring a router to accommodate variations in parameters for changing from one network interface device to another for the router's network connection (paragraph [0003]). The user can select the network connection type through the user interface and the program automatically configures the router with parameters for the selected connection type (abstract, paragraph [0012], paragraph [0013], paragraph [0014]).

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate the teachings of Kaan et al. into the system of Perrot et al. as modified by Nessett et al. and Kracht for the purpose of configuring a connection based on the networks available (paragraph [0012] lines 9-12).

22. **Claims 23, 26, and 27** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Perrot et al. (US Patent # US 2004/0125744 A1)** in view of **Nessett et al. (US Patent # US 6,865,673 B1)** in further view of **Kaan et al. (US Patent Pub # US 2002/0065941 A1)**.

a) Consider **claim 23**, and **as applied to claim 19 above**, Perrot et al., and Nessett et al., as modified by Kaan et al. clearly show and disclose, the computing device of Claim 19, wherein the machine instructions further cause the processor to enable a user to initiate configuration of the bridge by selecting an option in an operating system executed on the computing device (paragraph [0042]).

b) Consider **claim 26**, and **as applied to claim 19 above**, Perrot et al., and Nessett et al., as modified by Kaan et al. clearly show and disclose, the computing device of Claim 19, wherein the machine instructions further cause the processor to enable a user to selectively query the bridge for the properties with which the bridge is currently configured (paragraph [0050], paragraph [0051]).

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c) Consider **claim 27**, and **as applied to claim 19 above**, Perrot et al., and Nessett et al., as modified by Kaan et al clearly show and disclose, the computing device of Claim 19, wherein the machine instructions further cause the processor to enable a user to change selected properties of the bridge in a user interface displayed by the computing device (figure 6, paragraph [0050], paragraph [0051], paragraph [0077], paragraph [0079]).

23. **Claim 25** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Perrot et al. (US Patent # US 2004/0125744 A1)** in view of **Nessett et al. (US Patent # US 6,865,673 B1)** in further view of **Kaan et al. (US Patent Pub # US 2002/0065941 A1)** and **Feder et al (US Patent # US 6,522,881 B1)**.

a) Consider **claim 25**, and **as applied to claim 19 above**, Perrot et al. as modified by Nessett et al. clearly show and disclose, the computing device of Claim 19. However, Perrot et al. as modified by Nessett et al. does not specifically disclose the machine instructions further cause the processor to enable a user of the computing device to selectively send a status request to the bridge, said status request indicating whether the bridge is connected in communication with a wireless network and if so, indicating a signal strength of wireless signals received by the bridge over the wireless network.

Kaan et al. show and disclose configuring a router to accommodate variations in parameters for changing from one network interface device to another for the router's network connection (paragraph [0003]). The user can determine the status of the connection (paragraph [0062], paragraph [0082]).

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate the teachings of Kaan et al. into the system of Perrot et al. as modified by Nessett et al. and Kracht for the purpose of determining the status of a connection

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(paragraph [0012] lines 9-12). However, Kaan et al. does not specifically mention indicating a signal strength of wireless signals received by the bridge over the wireless network.

Feder et al. show and disclose selecting an access point in a wireless network by monitoring control signals transmitted by access point and electing an access point based on communication link quality metrics, such as signal strength (abstract, column 2 lines 36-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Feder et al. into those of Perrot et al. and Nessett et al. as modified by Kaan et al. for the purpose of determining the signal strength of available access points.

### *Conclusion*

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Xiong et al. (US Patent # US 7,096,490 B2) disclose: "Information Routing device Having an Auto-Configuration Feature"
- Xiong (US Patent # US 6,958,996 B2) discloses: "Router with Automatic Protocol Configuration and Methods of Use"
- Bhatti (US Patent Pub # US 2003/0140344 A1) discloses: "Wireless Control for Universal Plug and Play Networks and Devices"
- Crumby (US Patent # US 6,638,170 B1) discloses: "Gaming device Network"
- Alexander (US Patent # US 6,272,120 B1) discloses: "Multi-Radio Bridge"

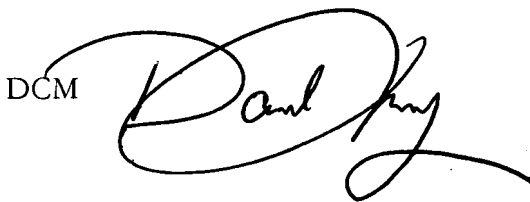
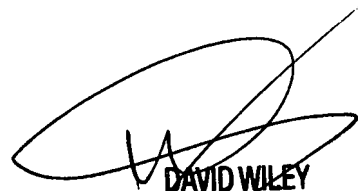
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Murray whose telephone number is (571)-270-1773. The examiner can normally be reached on Monday - Friday 0800-1700 EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (571)-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DCM

A handwritten signature in black ink, appearing to read "David Wiley", with a large, stylized loop at the end.A handwritten signature in black ink, appearing to read "David Wiley", with a large, stylized loop at the end.

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